QUARTERLY SUMMARY

OF THE

PROGRESS OF MEDICAL SCIENCE.

ANATOMY.

UNDER THE CHARGE OF

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THE SHORT MUSCLES OF THE THUMB AND LITTLE FINGER.

H. ST. JOHN BROOKS finds that the outer head of the flexor brevis pollicis muscle most frequently receives branches from both the median and the ulnar nerves. The following table shows the variations in the nerve supply of this muscle in 31 dissections: outer head supplied by deep branch of ulnar alone, 5 cases; outer head supplied by ulnar and median, 19 cases; outer head by median, inner head by ulnar, 5 cases; outer head by median, inner head by median and ulnar, 2 cases.

The same anatomist shows, from a comparison of the muscles in a considerable number of mammals, and from their relation to the deep part of the ulnar nerve, that the muscle known as the flexor brevis minimi digiti in human anatomy, and the larger part of the opponens minimi digiti, are derived from Cunningham's superficial or adductor layer, while the ulnar head of the true flexor brevis is only represented by a part of the opponens beneath the deep branch of the ulnar nerve; the radial head of the flexor brevis forms the third palmar interosseous muscle. The so-called deep head of the flexor brevis pollicis is really a part of the adductor, and the proper ulnar head of the short flexor is the first palmar interosseous of Henle. The separation and reduction of some of their parts, shown by these muscles, is attributed to the pressure of the more developed long flexor tendons in the higher mammals.—*Journal of Anatomy*, July, 1886.

ON THE CENTRAL CONNECTIONS OF THE AUDITORY NERVE.

BENNO BAGINSKY has studied the origin and central course of the auditory portion of the eighth nerve in the rabbit by observing the degenerations following destruction of the cochlea in young animals. He contrived an operation by which the cochlea was completely destroyed, while the other parts of the labyrinth remained intact, and found that the resulting degenerative changes affected solely the hinder root of the auditory nerve, the anterior root being unaltered. The fibres of the posterior root are thus shown to have no connection with the inner and outer auditory nuclei, but to spring in part from the anterior or accessory auditory nucleus and the tuberculum laterale of Stieda, and in part to course round the restiform body into the arcuate fibres of the medulla oblongata. Other fibres appear to pass through the corpus trapezoides to the superior olive of the same side. Having crossed the mesial plane the auditory fibres are found in the lower fillet of the opposite side, running to the inferior quadrigeminal and internal geniculate bodies, which are believed to be related to the auditory nerve in the same way as the superior quadrigeminal and external geniculate bodies are to the optic nerve. No changes were found above the mesencephalon in the cerebrum, or in the cerebellum and its inferior peduncle.—*Virchow's Archiv*, July, 1886.

ON THE SKIN OF THE EXTERNAL AUDITORY MEATUS.

The skin lining the deepest part of the external auditory meatus is generally described as presenting papillæ disposed more or less regularly in longitudinal rows. This statement is corrected by E. KAUFFMANN, who demonstrates that the prominences seen in frontal sections of the meatus are caused by fine ridges of the cutis, running transversely to the axis of the canal and parallel to the margin of the tympanic membrane. The ridges are most numerous on the floor of the meatus, less frequent in the roof, and disappear on the anterior and posterior wall. Only exceptionally are a few small papillæ found projecting from some of the ridges. The ridges first make their appearance between the fourth and fifth month of fœtal life, and they appear to become less marked in old age.—*Wiener Jahrbücher*, July, 1886.

THE ADENOID TISSUE OF THE PITUITARY MEMBRANE.

E. ZUCKERKANDL discusses the adenoid tissue of the nasal mucous membrane, of which he considers it a normal, although exceedingly variable, constituent in man. The occurrence of a scanty infiltration of the mucous membrane with lymphoid cells is regular, but masses of adenoid tissue, either in the form of diffuse infiltration or follicles, are exceptional.

The adenoid tissue is found most abundantly in the respiratory division of the nose, and especially in its hinder part. In the olfactory region the connective tissue of the mucous membrane contains interspersed lymphoid cells, but no follicles. Adenoid tissue, both diffuse and forming follicles, is well developed in the pituitary membrane of the dog, cat, sheep, pig, stag, and hare, in all of which follicles are more numerous and constant than in man.—*Wiener Jahrbücher*, July, 1886.

ON THE POSITION OF THE PELVIC ORGANS IN THE FEMALE.

A. WALDEYER concludes, from his observations on some twenty nulliparæ between the ages of fifteen and thirty, that the normal position of the female pelvic organs is that described by His and B. S. Schultze. The uterus is inclined forward, resting against the bladder, and being more or less sharply bent at the level of the internal os according to the degree of distention of the bladder, the cervical portion is relatively fixed, while the body is freely movable. In no case was intestine found between the uterus and bladder; the recto-uterine pouch is occupied by a part of the sigmoid flexure, and less frequently also by small intestine. The broad ligament is in the upright posture nearly horizontal. A deviation of the uterus to one side, more frequently to the left, is very common, and is probably a temporary condition. The flexion of the uterus is less marked in children than adults, depending on the relatively less capacious pelvis. The ovaries lie against the side wall of the pelvis, a little behind the middle of the ilio-pectineal line, having their long axis nearly vertical, the hilus-border directed forward and outward, and the surfaces looking inward and outward. The ampullary portion of the Fallopian tube forms a loop over the ovary, and the latter organ is almost entirely concealed by a curtain-like fold of the broad ligament.

The contracted bladder is in the adult entirely behind the symphysis pubis, and is much flattened on its upper aspect in comparison with the male organ. The ureters lie against the side wall of the pelvis close below the ovaries, very near to the hilus. The projecting fold of peritoneum which runs across from side to side over the empty bladder, and which is shown to exist also in the adult female, is named by Waldeyer *plica vesicalis transversa.—Anatomischer Anzeiger*, June 15, 1886.

J. SYMINGTON publishes some valuable observations, with figures, upon the position of the uterus and ovaries in the child, as ascertained by frozen sections. He finds that in the fœtus and newly born infant the whole of the anterior surface of the uterus is in close contact with the bladder, and that the axes of the uterus and vagina form a very obtuse angle, open forward. In a child of two months, in which the bladder was empty, the uterus was straight, and intestine lay in the vesico-uterine pouch. A mesial section from a child of fifteen months shows how the uterus is pushed backward by a distended bladder. In a girl six years old, the upper surface of the empty bladder is concave, and its posterior surface is in relation with the cervix of the uterus and the upper part of the vagina; the axis of the uterus is straight; in this case there is a considerable quantity of fluid in the lower part of the abdominal cavity, which has carried up the intestine away from the uterus. In a girl of thirteen years, the uterus is almost straight and strongly anteverted, being closely applied to the nearly empty bladder. The author believes that the view that the uterus is normally anteflexed in the infant is erroneous, and that it is less anteverted in the child than in the adult.

Concerning the position of the ovary, Symington agrees with Waldeyer, and points out that the organ is not normally fixed, but possesses a considerable range of mobility, alterations being mainly due to change in the uterine position. The uterus does not undergo any marked increase in size between infancy and puberty. The period at which the arbor vitæ disappears from the body of the uterus is variable; in one case it was still well marked at thirteen years.—*Edinburgh Medical Journal*, July, 1886.